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Inventors: Xiaodong Huang et al.
Atty. Docket No.: 22920-06460 URFACE

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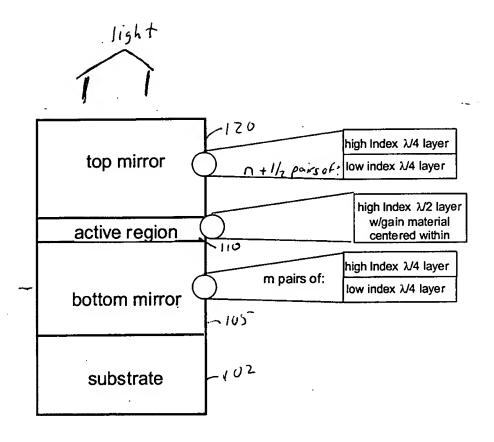
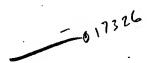
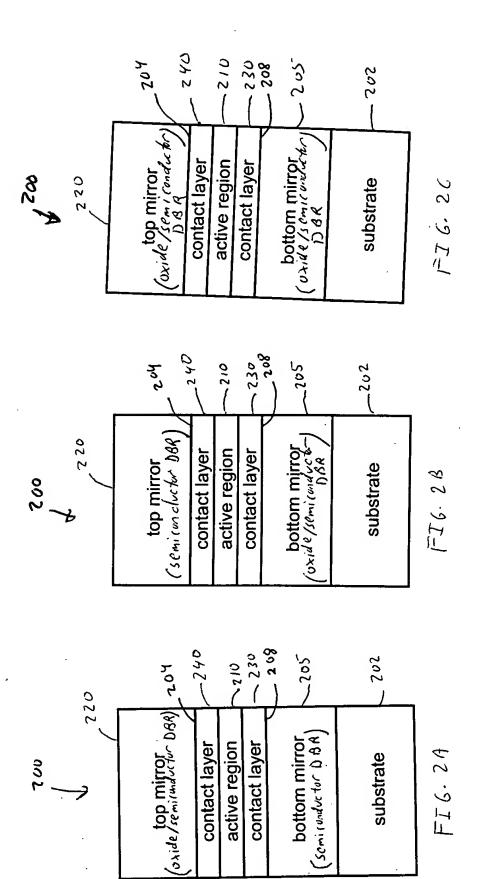


FIG.1 (prior art)



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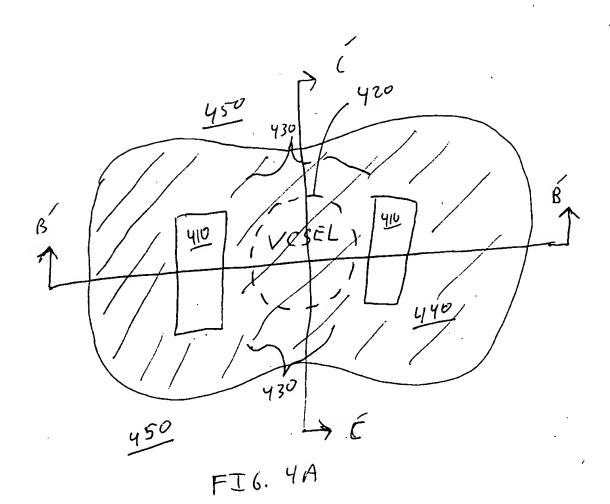
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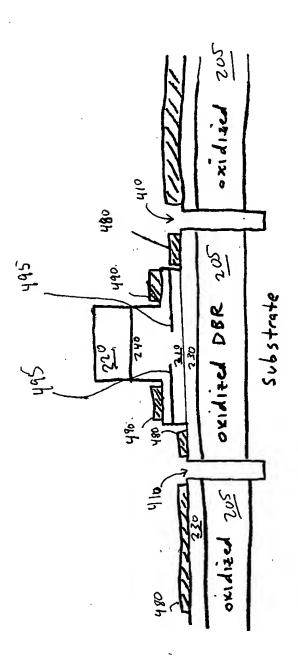
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	Intermediate layer	-310 -
	non-oxidizable semiconducti layer	315 >/4
>/2	Intermediate layer	-310 1
-	oxidizeble semicunducter layer	705-7/4
X	Intermediate layor	310
	non-oxidizable semiconductor layer	315
	Intermediate layer	-310
	oxidizable semiconductorlayor	-305
	·	
	FIG.3	

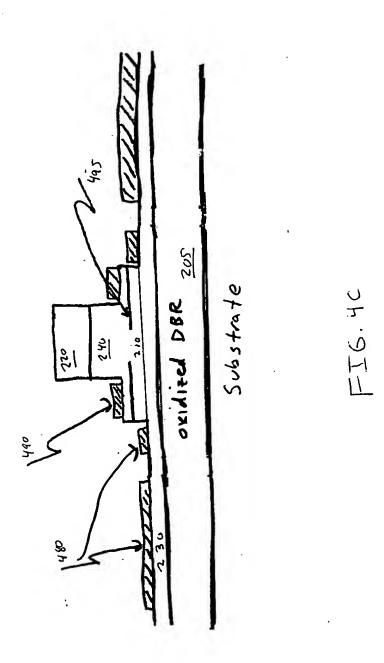
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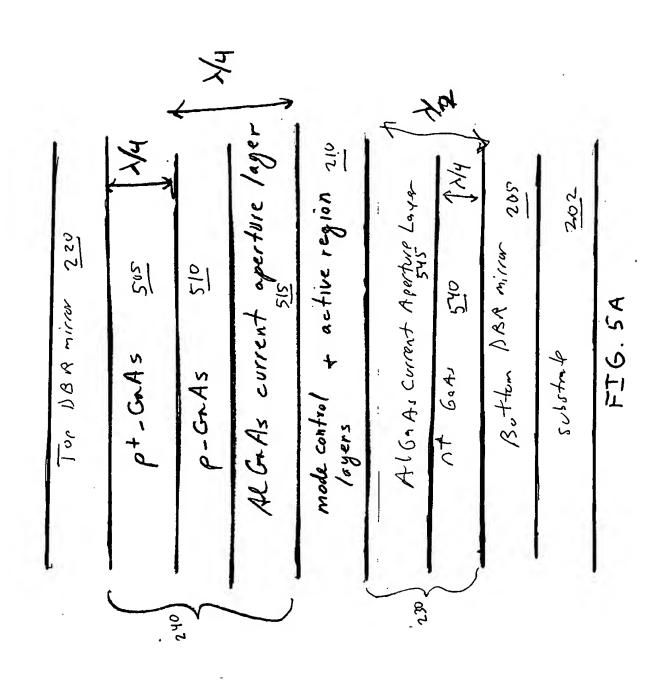


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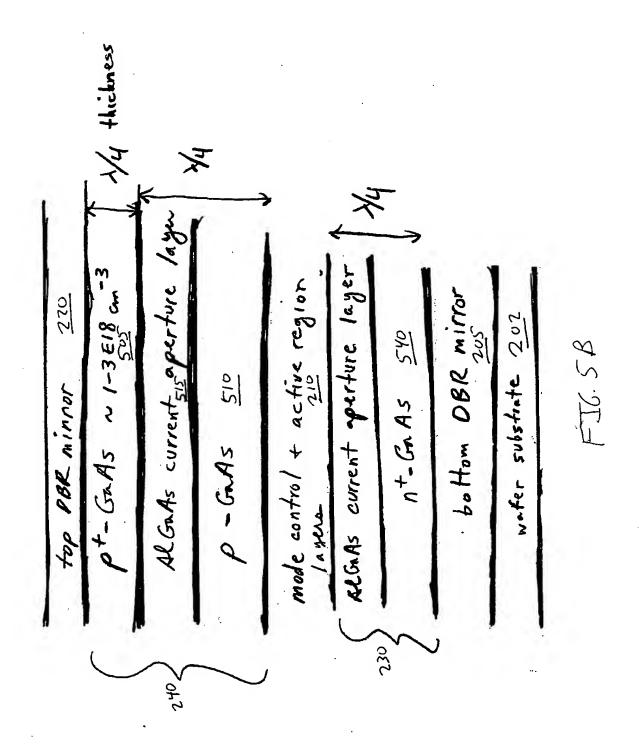


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**EMITTING LASERS** 

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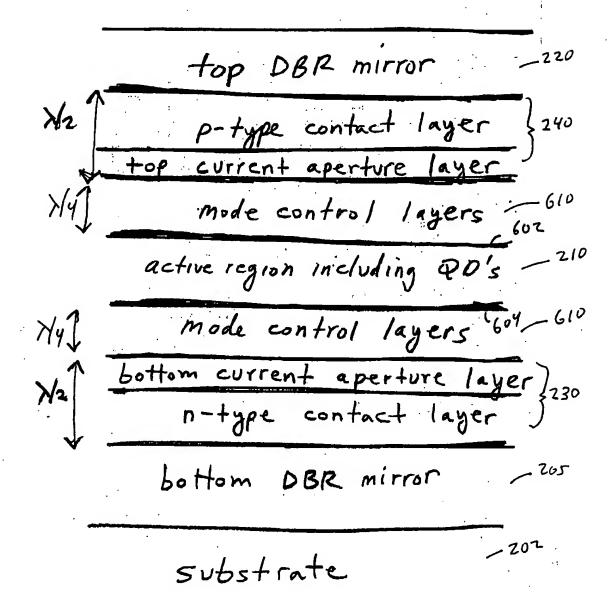
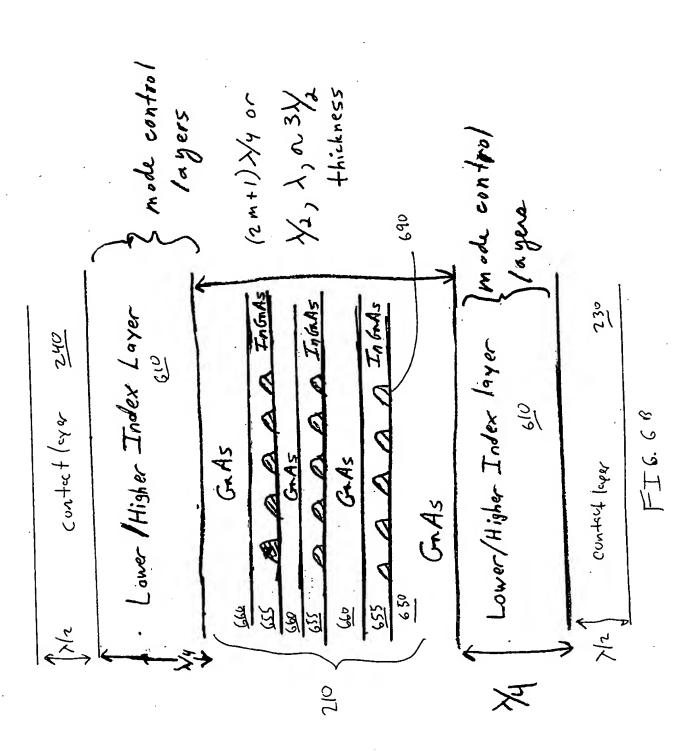


FIG. 6A

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•	
3	
_	$\Rightarrow$

HOTEL" SOLVEDOT

	GaAs	92nm, 5x	
120	Al <sub>92</sub> Ga <sub>08</sub> As	10nm, 5x	
`	AlAs	213nm, 5x	
<i>ک</i> ر	Al,92Ga,08As	10nm, 5x	
370 070	GaAs, p3 <sup>18</sup>	92nm	p-contact
- 2192	Al <sub>92</sub> Ga <sub>08</sub> As,	p1 <b>6</b> /107nm	Mode Control
J	GaAs, p1 <sup>77</sup>	71nm	p-contact
<i>ر</i>	Al.98Ga.02As,	p167 50nm	Current aperture
1	Al <sub>92</sub> Ga <sub>.08</sub> As	12nm	grade for current aperture
	GaAs	20nm	Active
	GaAs	10nm, 3x	600C Active
	GaAs	0.8nm, 3x	Active
7 010	In 15 Ga 85 As	~8nm, 3x	Active
\ \ ?!	InAs	2.4ML, 3x	Active
~	In 15 Ga 85 As	lnm, 3x	510°C Active
ノ ;;	GaAs	159nm	Active
()	Al.92Ga.08As,	n1 <b>6</b> 7107nm	Mode Control
500	GaAs, n2 <sup>18</sup>	92nm	n-contact
•	Al <sub>92</sub> Ga <sub>.08</sub> As	10nm, 8x	
7,5	AlAs	213nm, 8x	
<b>1</b> 07	Al <sub>92</sub> Ga <sub>.08</sub> As	10nm, 8x	
~_	GaAs	92nm, 8x	
_	Al <sub>92</sub> Ga <sub>.08</sub> As	10nm	
ر	AlAs	213nm	
•	Al <sub>92</sub> Ga <sub>,08</sub> As	10nm	
	GaAs	200nm600C	
	GaAs N+ 2" 1-side		Tox=620C, 10min

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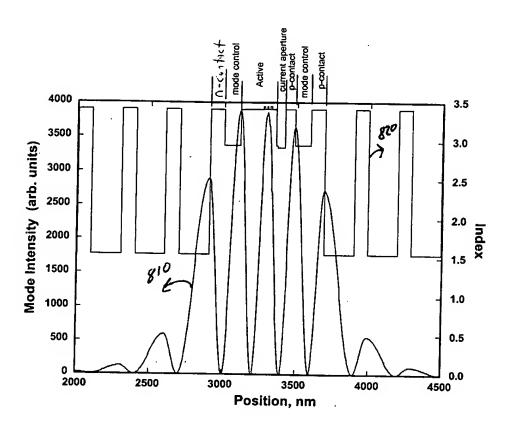


FIG.8

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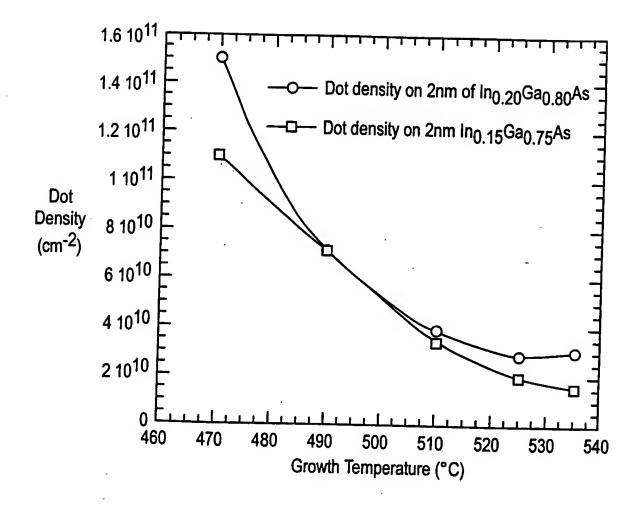


FIG. 9

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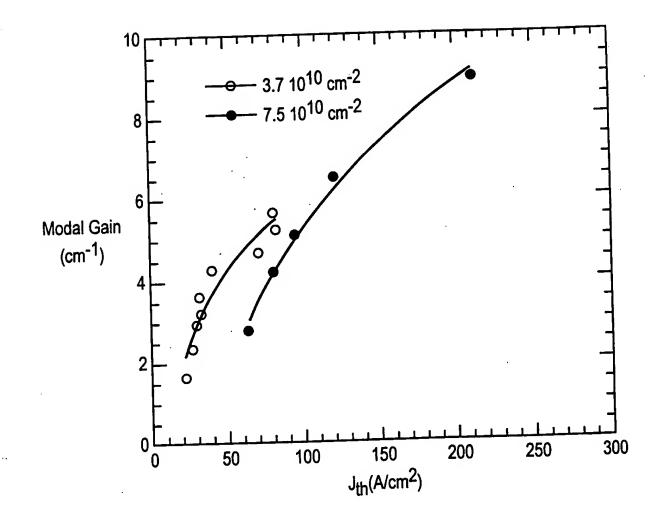
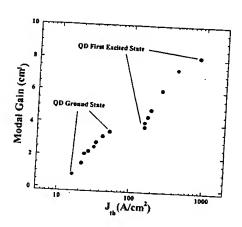


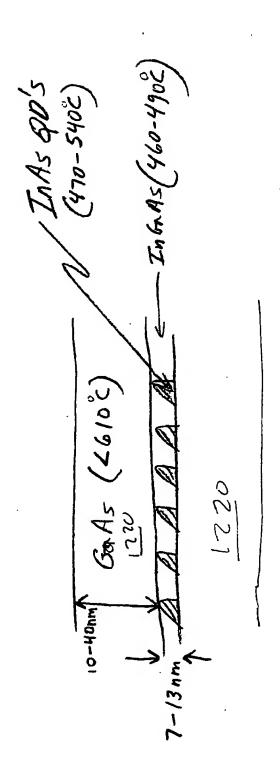
FIG. 10

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FT6.11

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-3 monolayers (470-540c) - 0.5-2 nm (~490c) 11 nm (460-490C) 1220 6a A5

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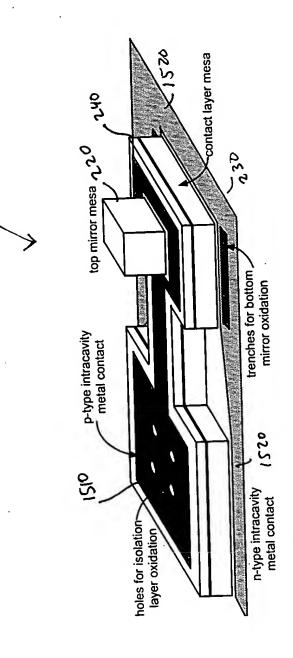
		<del></del>
•	tup million	~220
-	contact layer	
r -		NO'S Noch
1_	Active resion + mude control (	1310 C1305
	contact layer	230
	bottom mirror	~205
	substate	~202

FIG.13

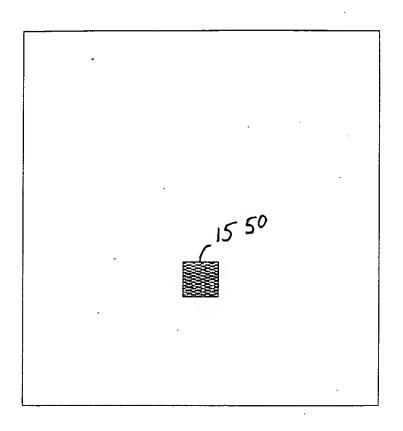
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022	12 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2	87 (A)	230	205	101
top mirror	contact laber	active region  mode control	contact layur	bottom mirror	water substrate
		N X			1

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FI6. 15B

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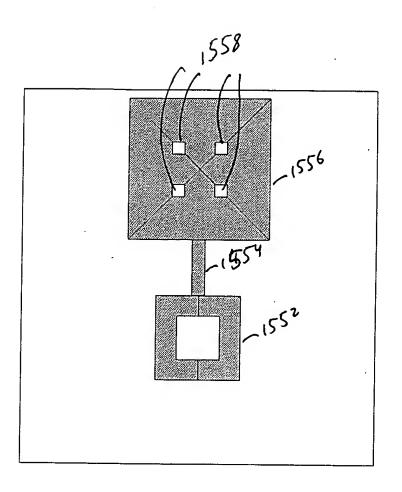


FIG. 150

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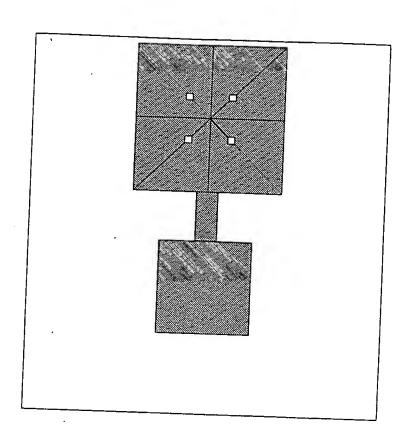


FIG. 15D

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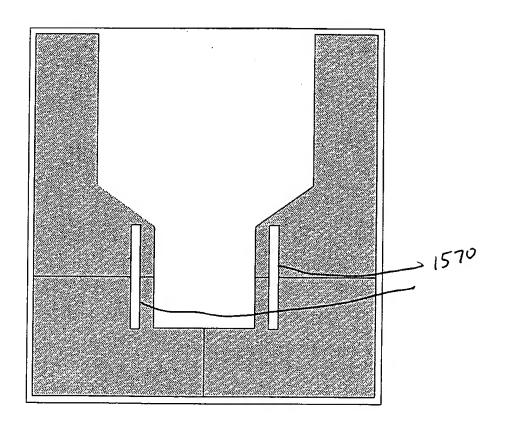


FIG.15E

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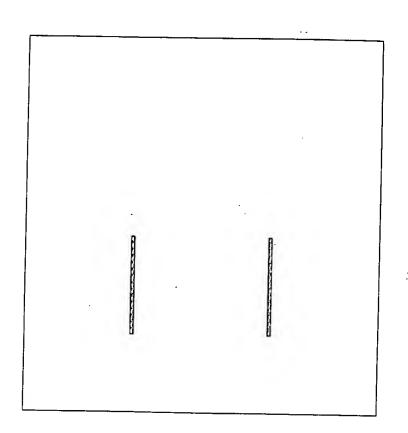


FIG. 15 F

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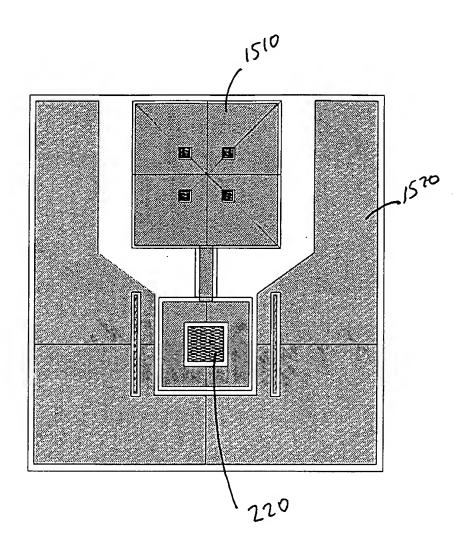
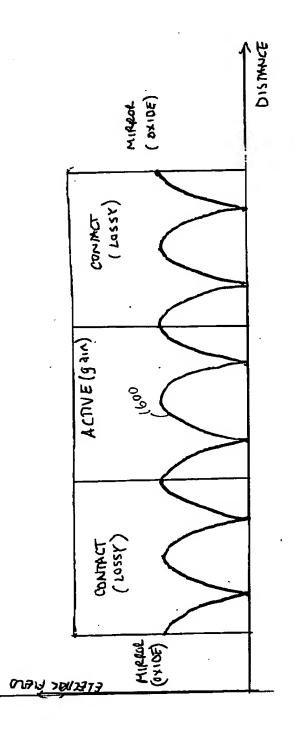


FIG. 156

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